QUALITY ASSURANCE REPORT/QUALITY CONTROL REPORT

CE/QA/PR/ 647 /2022-23, DATE: 7/10/23		
Name of Work	:	Package No.06 Consists of 14 Works Estimated cost 1500.00Lakhs
Job Code	:	009-23-000003
Bill No.& Amount	:	**7th &Part Bill.Rs. 98,66,151.00(Including GST)**
Name of Agency	:	**M/s SMLP Asphalts. Prop, Sri B B Umesh**
Type of Test Performed	:	Rebound Hammer test as per IS13311-(2)-1992&Bitumen Content and Gradation test as per Table 500.17 MoRTH V Revision.
Materials on which Tests Was Performed	:	1. CC Road (M30) 2. Precast cover slab(M20) 3. Bituminous Concrete (Grade II)
Officers present during inspection	:	1.Sri. Praveen AE- Ward No 09 2.Smt. Archana AE- Ward No 09 3. Sri .K.M.Yadukrishna AEE-Quality Assurance
Project Management Consultants	:	Mecadez Core Technologies Pvt Ltd
Observations	:	➢ NDT (Rebound hammer test) and Bitumen content & Gradation test was conducted by Project Management Consultants representative at random locations in presence of AE (Ward No.09), along with AEE QA division. ➢ The Rebound Hammer Test was conducted randomly on CC Road (M30), Precast cover slab and also Bitumen content & Gradation Test were conducted for BC (Grade-II). The readings and results are recorded by the PMC consultants. ➢ The readings of Rebound Hammer Test and Bitumen Content & Gradation Test results are tabulated and analysis of test results done by PMC is here by furnished. ➢ The location wise test results are reproduced in the tables shown below.
Test Locations	:	**Location 1**: Cross road-1 Veeranna layout **Location 2**: 1st main road, Muniyappa layout **Location 3**: Backside of anjaneya temple virupakshipura kodigehalli **Location 4**: 6th cross 3rd main, Muniyappa layout

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Table-01: Bitumen Content and gradation Test Results BC- (GRADE-II)

Location 1: Cross road-1 Veeranna layout Location 2: 1st main road, Muniyappa layout		
Description	**Trial 1**	**Trail 2**
1.Initial weight of sample (gms) w1	656	669
2. final weight of sample after extraction (gms) w2	622	634
3. Initial weight of filter paper (gms) w3	2	2
4. Final weight of filter paper (gms) w4	4	4
5.Increased weight of filter paper (gms) w5=(w4-w3)	2	2
6. Weight of Bitumen Extracted (gms). w6=w1-w2+w5	36	37
7. Bitumen content in % (w6/w1)x100	5.49	5.53
8.Average	5.51	

SIEVE SIZE mm	Trail 1				Requirement as per MORTH table 500.17
	Weight Retained, gm	Cumulative Weight Retained	%Cumulative Retained	% Passing	
19.00	0.00	0	0.00	100.00	100
13.2	45.97	45.97	7.01	92.99	90-100
9.5	98.25	144.22	21.98	78.02	70-88
4.75	125.97	270.19	41.19	58.81	53-71
2.36	49.63	319.82	48.75	51.25	42-58
1.18	57.14	376.96	57.46	42.54	34-48
0.6	45.76	422.72	64.44	35.56	26-38
0.3	87.61	510.33	77.79	22.21	18-28
0.15	52.47	562.80	85.79	14.21	12-20
0.075	36.29	599.09	91.32	8.68	4-10
SIEVE SIZE mm	Trail 2				Requirement as per MORTH table 500.17
	Weight Retained, gm	Cumulative Weight Retained	%Cumulative Retained	% Passing	
19.00	0	0	0.00	100.00	100
13.2	59.35	59.35	8.87	91.13	90-100
9.5	115.26	174.61	26.10	73.90	70-88
4.75	87.54	262.15	39.19	60.81	53-71
2.36	84.87	347.02	51.87	48.13	42-58
1.18	61.39	408.41	61.05	38.95	34-48
0.6	35.21	443.62	66.31	33.69	26-38
0.3	68.12	511.74	76.49	23.51	18-28
0.15	42.56	554.30	82.86	17.14	12-20
0.075	63.59	617.89	92.36	7.64	4-10

Table-02: Rebound Hammer Test Results for

Sl No	Member	Rebound Hammer Number	Average Reading	Compressive Strength (N/mm2)	Impact Direction
Sample Tested Location At Backside of anjaneya temple virupakshipura kodigehalli					
1	Precast Cover Slab (M20)	32	28	25-27	Vertical Down
2		28			Vertical Down
3		32			Vertical Down
4		26			Vertical Down
5		26			Vertical Down
6		26			Vertical Down
Sample Tested Location At 6th cross 3rd main, Muniyappa layout					
1	CC Road (M30)	34	35	37-39	Vertical Down
2		28			Vertical Down
3		36			Vertical Down
4		38			Vertical Down
5		36			Vertical Down

Conclusion:

The file containing **7th & Part bill** has been submitted for the above work to QA department on **02.08.2023** requesting for spot inspection. Engineers of QA/QC division have visited the work spot on **25.09.2023**

PMC team was instructed to assess the strength of concrete used CC Road (M30), Precast cover Slab (M20) by Rebound Hammer Test and also Gradation & Bitumen content test for BC (Grade-II) on Asphalted road . The Rebound hammer test and Bitumen Content and Gradation Tests were conducted by PMC in presence of engineer in charge of work.

From the test results furnished by PMC, it is concluded that the results of the samplescollected are in accordance with the standards/ specifications mention in the IRC codes. However, the results submitted by the PMC have been reproduced here with for further needful action. The results checked by QA/QC relates only for item tested in the particular location randomly.

Engineer in charge of work shall ensure that work executed as per this bill is not claimed in any other bill /work or else Engineer in charge of work shall be held responsible.

Further, QA/QC directs the Engineer in-charge of the work that all materials used for the work shall be inspected, tested and accepted as per the relevant specifications before incorporation in the work. The frequencies and methods of sampling and testing materials, including those required for definite purpose and not covered by MORT&H specifications shall be in accordance to the relevant IRC or BIS or AASHTO/ASTM/BS standards in order of priority.

All materials or work not conforming to the requirements of the specifications shall be considered unacceptable and rejected. The unacceptable materials or works that are rejected shall be immediately removed unless the defects are corrected and approved by the engineer in-charge of work.

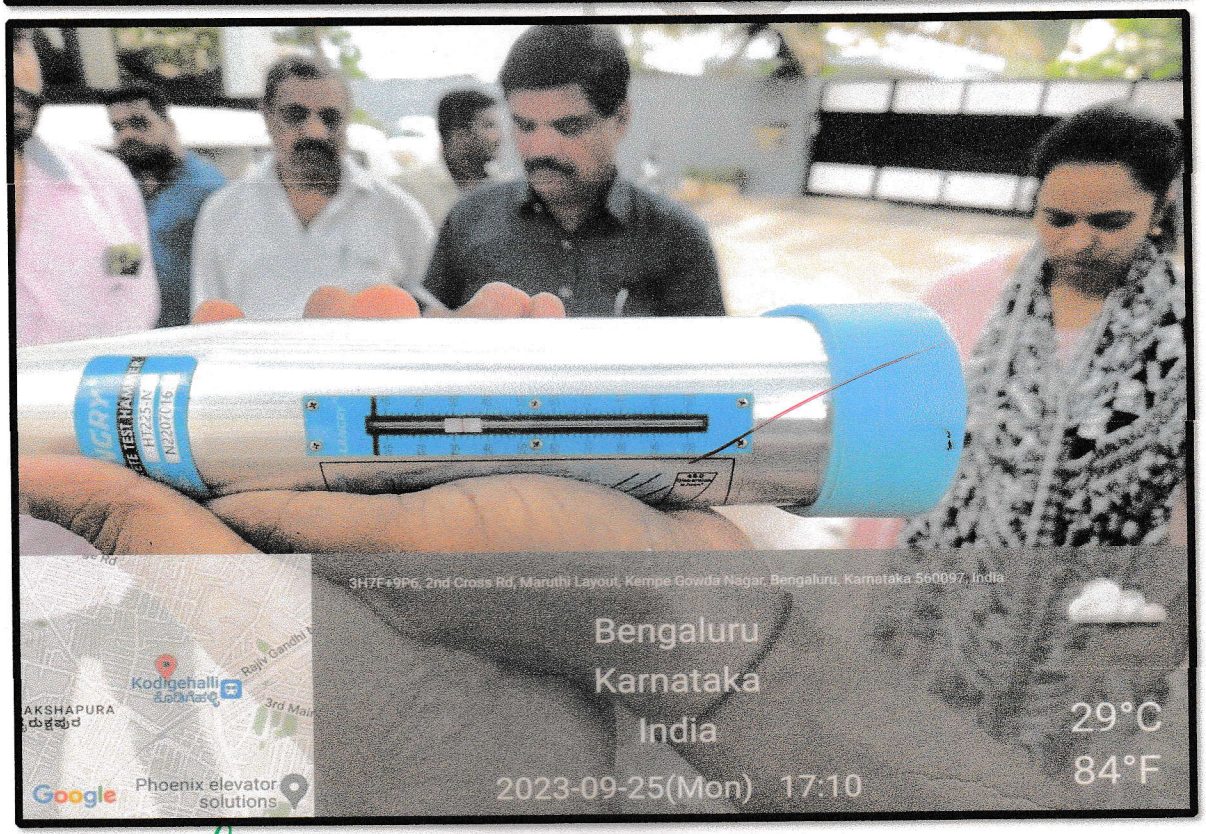
The concerned Engineer in charge of the work shall follow the direction issued by Chief Commissioner Letter number dated 01.08.2022 and 14.09.2022 and take necessary action as appropriate in accordance with the law.

Note: -

This report by QA/QC is pertaining to the work carried out in **7th & Part bill** only. Safety precautions shall be taken at work spot to prevent any mishap, injuries or loss of life to general public and construction workers according to guidelines laid down in code of practices.

Engineer in charge of work and Agency shall ensure that if any damages or defects occur pertaining to the executed work within the Defect Liability period (DLP), The same shall be rectified immediately on top priority without fail.

Engineer in charge of work shall ensure that any changes/ modification/change in location in the sanctioned estimate to be got approved by competent



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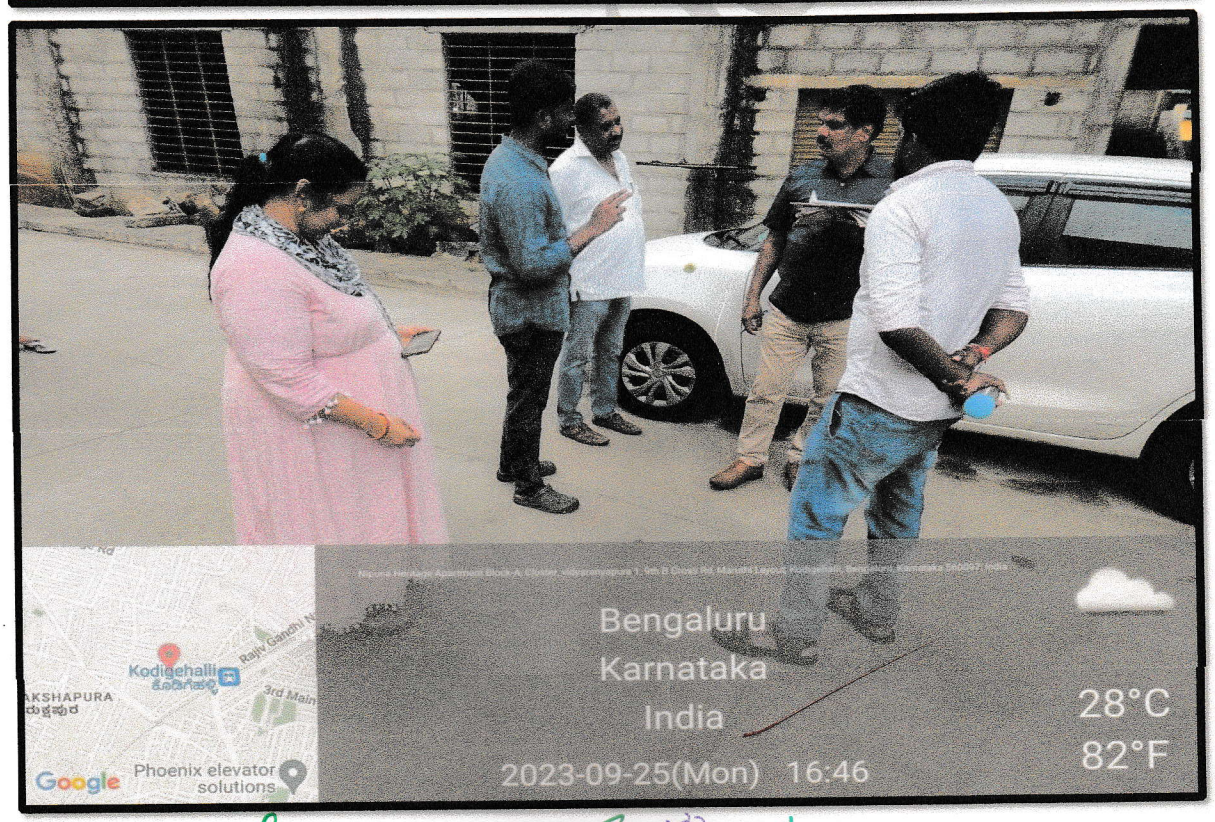

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು 23/10/23

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಗುಣಾಧರಣೆ/ಗುಣನಿಯಂತ್ರಣ ವಿಭಾಗ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ 24/10/23

ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು
ಗುಣಾಧರಣೆ/ಗುಣನಿಯಂತ್ರಣ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ 24/10

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Google
Phoenix elevator solutions

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